PHONE AND EMAIL COMMUNICATION WITH INDUSTRY ON THE GLASS MANUFACTURING AREA SOURCE STANDARD

NAME	Bob St. John	**DATE**	5 OCT 07
COMPANY	Libbey Glass		
CITY/STATE	US-WIDE	**PHONE**	419-727-2493

They make colored glass at one plant. The melted glass enters the lehr and then goes to the forehearth.They do not use Glass Manufacturing HAPs in the melting furnace but the frit does contain some Glass Manufacturing HAPs.

They buy the frit as a manufactured glass product. The frit is added at the forehearth after the glass has been extruded from the melter, it is not added to the melting furnace. Frit is a pre-vitrified product and does not release HAP the way raw minerals do. Frit melts at a much lower temperature than the typical glass manufacturing raw materials. There are no Glass Manufacturing HAPs added to this melting furnace.

NAME	Mark Tussing	**DATE**	9 OCT 2007
COMPANY	Owens-Illinois		
CITY/STATE	US-WIDE	**PHONE**	567.336.8682

1) Regarding repair and rebuild of furnaces.

Under the proposed rule, the compliance date for new furnaces is upon startup. O-I does not have sufficient time to plan for new controls on furnaces they are currently reconstructing. They have repairs coming up on furnaces in April 2008. O-I suggested they would need additional time to install controls, and requested that the rule be modified to allow them to operate this furnace and add the APCD within a year.

O-I suggests EPA make an allowance in the rule for an affected source reconstructed within the first year of the rule: such sources would have a year from promulgation of the final rule to comply in order to be able to engineer the new furnace with a new APCD.

2) Regarding recipe changes:
The rule is silent when furnace goes from melting glass containing no Glass Manufacturing HAPs, to a recipe that contains Glass Manufacturing HAPs. This happens when O-I changes the color of their glass. O-I suggested the rule be adjusted so that a glass plant only has to do recordkeeping and reporting when melting a recipe containing Glass Manufacturing HAPs.

NAME	CONFERENCE CALL	DATE	9 OCT 2007
COMPANY	Gene Weekley, Blenko Glass, Milton WV Brandon Byer, Spectrum Glass, Woodenville, WA Eric Durren, Bullseye Glass, Portland, OR		
CITY/STATE	As noted above	PHONE	

Three companies in the Stained Glass Industry (Spectrum Glass, Blenko Glass and Bullseye Glass) called to describe their manufacturing processes.

Spectrum uses electrodes in their continuous furnace to melt the glass. It is a 'cold top' continuous furnace.

Bullseye glass makes 200 different formulas of glass in 17 different tank and pot furnaces. They limit emissions using management practices such as reducing the temperature during charging, dampening the batch, screw conveyors to introduce the batch, bagging the raw materials into kraft paper and placing into the cold furnace, and they conduct monitoring of employees.

Blenko is a tourist attraction. They make only one recipe that contains Glass Manufacturing HAPs, and that is cadmium. They make this glass infrequently. They also make blown glass.

All the stained glass manufacturers are small businesses.

The batch furnaces are cleaned and charged in cycles. A batch of glass melts in 8-14 hours depending on the recipe. It is pulled out of the pot or tank by ladles or a tap at the bottom of the furnace and rolled out into a sheet. Pot and tank furnaces have a 2-year life cycle.

NAME	Eric Durren	DATE	10 OCT 2007
COMPANY	Bullseye Glass		
CITY/STATE	Portland, OR	PHONE	503.232.8887 x 103

Bullseye Glass called to provide additional information beyond what was discussed during the conference call. Bullseye Glass is the second largest producer of stained glass in the US. The glass is made in small batches in periodic furnaces. They operate many small periodic furnaces and have some batches of glass that have glass manufacturing HAPs in them.

They make under 450 tons per year of glass that contains glass manufacturing HAPs. The HAPs they use are highly purified and expensive; they are mostly retained in the melt.
None of their batches contain lead or arsenic.

Throughout the stained glass industry, stained glass is made by batches, not in continuous furnaces the way flat glass is made. They hand-ladle the glass out of the furnace and place the molten glass onto one of three types of rollers to make sheets of glass.

Because they melt the glass in small periodic furnaces, the cost effectiveness of additional control equipment would be prohibitive.

NAME	Brandon Byer	**DATE**	10 OCT 2007
COMPANY	Spectrum Glass		
CITY/STATE	Seattle, WA	**PHONE**	425.483.6699 X 4605

Spectrum Glass contacted us to provide additional information on the Stained Glass industry and to comment on the proposed rule. Spectrum Glass is the largest stained glass manufacturer in the US. Spectrum has different production processes from the rest of the industry and several furnaces have fabric filter (baghouse) controls in place. They operate one continuous furnace and the rest are batch furnaces; in all they have 10 large furnaces and use 3 different processes to press the glass. They hand ladle the molten glass out of most of the pot and tank furnaces and place it on roller to make sheets. One furnace taps from the bottom of the furnace to remove the molten glass onto the rollers.

Their one continuous furnace (the 'cold top' furnace) is uncontrolled because the State has determined that emissions are so low additional control is not needed.

NAME	Eric Durren	**DATE**	11 OCT 07
COMPANY	BULLSEYE GLASS		
CITY/STATE		**PHONE**	

He is sending comments to the docket and some CBI information to the CBI office. He believes a distinction should be made to the rule between periodic (i.e., pot and tank) furnaces and continuous furnaces.

NAME	Mike Ferguson	**DATE**	15 OCT 2007
COMPANY	ERGO Resource Management		
CITY/STATE		**PHONE**	574.457.8020

They make a type of stained glass called opalescent glass which is produced in pot furnaces.

Their glass furnace is indirectly heated and ERGO asks whether this would be subject to the rule.

There is no stack from the melting area (from which they could measure emissions). There is only a door to charge, and a forehearth when it comes out in a molten state. There is no vent to exhaust the fumes.

NAME	Brandon Byhre	DATE	17 OCT 07
COMPANY	Spectrum Glass (VIA EMAIL)		
CITY/STATE	Seattle, WA	PHONE	425.483.6699 X 4605

This email was received from Spectrum Glass:

Hi Susan,

I have spoken with Eric Durrin of Bullseye glass about your thoughts on the changes to the new rule. Below is Eric's interpretation of the new rule:

"Susan expects to add a clarification to the proposed rule to state that the new regulation would exclude pot and tank furnaces (periodic furnaces). Effectively, the new rule would only apply to continuous furnaces. This change would leave the rule affecting the industries that were the true target of the proposed rule, and it would carve out businesses that were not intended to be in the scope of this effort."

I was actually shocked to hear about this and would like to discuss this with you. Periodic furnaces, in our experience, actually emit much more particulate and contaminant into the atmosphere than continuous furnaces. Our State Clean Air Agency required that we have baghouses for our periodic furnaces because of the emissions. Our continuous furnace which is well above the 50 ton/year threshold does not create any visible emissions; Our State Clean Air Agency has never had any concerns for this furnace emitting particulate. This furnace does not go to a baghouse. The furnace is kept at temperature through bottom power only. It always has a cold surface which minimizes any turbulence in the furnace, whereas periodic furnaces have a significant amount of turbulence.

In May we installed a new baghouse which was not sized for this particular continuous furnace. Our current baghouses do not have the capacity to accept this furnace.

Please give me a call when you get a chance we can discuss our options.

Thank you,

Brandon Byhre | Glass Engineering Manager | Spectrum Glass Company
P.425-483-6699 x4065 F. 425-483-9007